CLAIMS

What is claimed is:

1. A system for wireless connectivity in a mobile environment, comprising:

a router for routing communication signals substantially complying with an Internet Protocol (IP) wireless standard to and from a wireless network, wherein said router is located on an object;

a first antenna located on said object communicatively coupled to said router for transmitting said communication signals to and from a plurality of access points on said wireless network;

a second antenna communicatively coupled to said router for transmitting said communication signals to and from said plurality of access points, wherein said second antenna is positioned a distance from said first antenna on said object that allows said router continuous access to said wireless network as said first antenna and said second antenna roam through said wireless network while said object is moving.

2. The system of Claim 1, wherein said distance is such that allows said router to transmit said communication signals to said wireless network through a first access point from said second antenna while a link is being established using a Mobile IP standard that communicatively couples said

first antenna to a second access point while said object is moving into wireless coverage provided by said second access point.

3. The system of Claim 1, wherein said first access point and said second access point provide successive wireless coverage along a path said object is moving.

4. The system of Claim 1, wherein said distance is greater than 42 meters.

5. The system of Claim 1, wherein said object comprises a train.

6. The system of Claim 1, wherein said first antenna and said second antenna comprise highly directional antennas.

7. The system of Claim 1, wherein said IP wireless standard substantially complies with the IEEE 802.11 communication standard.

8. The system of Claim 1, wherein said router transmits said communication signals to a backend server in said wireless network.

9. The system of Claim 1, wherein said router is communicatively coupled to at least one wireless device

located on said object that generates and receives said communication signals.

10. A method for wireless connectivity in a mobile environment, comprising:

transmitting communication signals substantially complying with an Internet Protocol (IP) wireless standard through a first antenna located on an object to a first access point in a wireless network while said object is moving along a path that is bringing said object into a second coverage zone provided by a second access point from a first coverage zone provided by said first access point;

establishing a link that communicatively couples said first antenna and said second access point using a Mobile IP standard as said object moves into said second coverage zone; and

transmitting said communication signals through a second antenna located on said object to said first access point while said first antenna is establishing said link with said second access point to provide continuous access to said wireless network.

11. The method of Claim 10, further comprising:

establishing another link that communicatively couples said first antenna and said first access point using said Mobile IP standard to allow said transmitting communication signals through said first antenna.

12. The method of Claim 10, wherein said establishing a link further comprises:

disassociating said first antenna from said first access point in another link that communicatively couples said first antenna and said first access point; and

reassociating said first antenna to said second access point in said link using said Mobile IP standard.

13. The method of Claim 10, wherein said establishing a link further comprises:

detecting a signal strength between said first antenna and said first access point has dropped below a threshold thereby necessitating a switchover to said second access point for communications through said first antenna.

14. The method of Claim 10, further comprising:

establishing another link that communicatively couples said second antenna and said first access point using said Mobile IP standard to facilitate said transmitting said communication signals through said second antenna.

15. The method of Claim 10, further comprising:

transmitting said communication signals to said wireless network using an IP standard substantially complying with IEEE 802.11.

16. The method of Claim 10, further comprising:

establishing another link that communicatively couples said second antenna and said second access point using said Mobile IP standard as said object moves into said second coverage zone; and

transmitting said communication signals through said first antenna to said second access point while said second antenna is establishing said another link with said second access point to provide continuous access to said wireless network.

17. The method of Claim 10, further comprising:

locating said first antenna a distance from said second antenna on said object that is greater than 42 meters.

18. The method of Claim 10, further comprising:

locating said first antenna a distance from said second antenna on said object that allows said first antenna to switchover from said first access point to said second access point while maintaining another link that communicatively couples said second antenna with said first access point for transmitting said communication signals while said object is moving.

19. The method of Claim 10, wherein said object comprises a train.

20. A computer system, comprising:

a processor; and

a computer readable memory coupled to said processor and containing program instructions that, when executed, implement a method for wireless connectivity in a mobile environment, comprising:

transmitting communication signals substantially complying with an Internet Protocol (IP) wireless standard through a first antenna located on an object to a first access point in a wireless network while said object is moving along a path that is bringing said object into a second coverage zone provided by a second access point from a first coverage zone provided by said first access point;

establishing a link that communicatively couples said first antenna and said second access point using a Mobile IP standard as said object moves into said second coverage zone; and

transmitting said communication signals through a second antenna located on said object to said first access point while said first antenna is establishing said link with said second access point to provide continuous access to said wireless network.

21. The computer system of Claim 20, wherein said method further comprises:

establishing another link that communicatively couples said first antenna and said first access point using said

Mobile IP standard to allow said transmitting communication signals through said first antenna.

22. The computer system of Claim 20, wherein said establishing a link in said method further comprises:

disassociating said first antenna from said first access point in another link that communicatively couples said first antenna and said first access point; and

reassociating said first antenna to said second access point in said link using said Mobile IP standard.

23. The computer system of Claim 20, wherein said establishing a link in said method further comprises:

detecting a signal strength between said first antenna and said first access point has dropped below a threshold thereby necessitating a switchover to said second access point for communications through said first antenna.

24. The computer system of Claim 20, wherein said method further comprises:

establishing another link that communicatively couples said second antenna and said first access point using said Mobile IP standard to facilitate said transmitting said communication signals through said second antenna.

25. The computer system of Claim 20, wherein said method further comprises:

transmitting said communication signals to said wireless network using an IP standard substantially complying with IEEE 802.11.

26. The computer system of Claim 20, wherein said method further comprises:

establishing another link that communicatively couples said second antenna and said second access point using said Mobile IP standard as said object moves into said second coverage zone; and

transmitting said communication signals through said first antenna to said second access point while said second antenna is establishing said another link with said second access point to provide continuous access to said wireless network.

27. The computer system of Claim 20, wherein said method further comprises:

locating said first antenna a distance from said second antenna on said object that is greater than 42 meters.

28. The computer system of Claim 20, wherein said method further comprises:

locating said first antenna a distance from said second antenna on said object that allows said first antenna to switchover from said first access point to said second access point while maintaining another link that communicatively

couples said second antenna with said first access point for transmitting said communication signals while said object is moving.

29. The computer system of Claim 20, wherein said object comprises a train.

30. A computer readable medium containing executable instructions which, when executed in a processing system, causes the system to perform the steps for wireless connectivity in a mobile environment, comprising:

transmitting communication signals substantially complying with Internet Protocol (IP) wireless standard through a first antenna located on an object to a first access point in a wireless network while said object is moving along a path that is bringing said object into a second coverage zone provided by a second access point from a first coverage zone provided by said first access point;

establishing a link that communicatively couples said first antenna and said second access point using a Mobile IP standard as said object moves into said second coverage zone; and

transmitting said IP communication signals through a second antenna located on said object to said first access point while said first antenna is establishing said link with said second access point to provide continuous access to said wireless network.

31. The computer readable medium of Claim 30, wherein said method further comprises:

establishing another link that communicatively couples said first antenna and said first access point using said Mobile IP standard to allow said transmitting IP communication signals through said first antenna.

32. The computer readable medium of Claim 30, wherein said method further comprises:

transmitting said communication signals to said wireless network using an IP standard substantially complying with IEEE 802.11.

33. The computer readable medium of Claim 30, wherein said method further comprises:

establishing another link that communicatively couples said second antenna and said second access point using said Mobile IP standard as said object moves into said second coverage zone; and

transmitting said communication signals through said first antenna to said second access point while said second antenna is establishing said second communication session with said second access point to provide continuous access to said wireless network.

34. The computer readable medium of Claim 30, wherein said method further comprises:

locating said first antenna a distance from said second antenna on said object that is greater than 42 meters.

35. The computer readable medium of Claim 30, wherein said method further comprises:

locating said first antenna a distance from said second antenna on said object that allows said first antenna to switchover from said first access point to said second access point while maintaining another link that communicatively couples said second antenna with said first access point for transmitting said communication signals while said object is moving.

36. The computer readable medium of Claim 30, wherein said object comprises a train.